SECRET

26 November 1956

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Dear Dick:

We are forwarding herewith eight copies of Monthly Progress Letter No. 16, covering the work performed on System No. 3 during the period extending from 4 October 1956 to 4 November 1956.

Sincerely,

Burt

Burt

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Monthly Progress Letter No. 16

Contract No. A-101

System 3

4 October 1956 to 4 November 1956

CMCC Document No. 163X5.19

Copy 3 of 12 Copies

(This document contains a total of 3 sheets, including this title sheet.)

1. General

During the interval covered by this letter, the major effort was directed toward expediting production of additional System 3 equipments, and a number of units neared completion.

2. Production Problems

During production of System 3 equipments, the following problems arose:

(1) A sheet of varnish-impregnated fibreglass used as an insulating material between the etched circuitry and a grounded plate in two major subassemblies broke down on application of 120 volts, even though the breakdown potential of this material had been specified at 1500 volts -- This deficiency has been corrected by substituting a double layer of a new material having a greater surface hardness and totaling double the thickness of the material previously used. This change required that a number of completed subassemblies be reworked.

(2) Irregularity in the performance of r-f subassemblies were caused by variations in the dielectric constant of the associated etched-board base material -- This required that several variable inductances be modified so that the subassemblies could be tuned accurately.

3. Revised Schedule

a. The third System 3 produced is scheduled for shock and vibration testing on 27 November 1956.

b. Two systems are now scheduled for delivery on 19 November 1956. Thereafter, two systems per week will be delivered.

c. The procurement of etched boards for System 3A modification assemblies has been delayed. For this reason, the completion

date for the first group of these assemblies has been changed to 17 December 1956.

4. System 3 Test Set

The rise time of the marker pulse of production models of System 3 have been permitted a wider tolerance than originally planned. Although this does not adversely affect the performance of System 3, the test set frequency checking circuit which uses the marker pulse must be changed to accommodate the increased tolerance. Except for this change, the second and third production test sets have been completed, but the incorporation of this change will delay shipment of these equipments until 26 November 1956.

5. Planning

During the coming month the major effort will be directed toward accelerating production of System 3 equipments.